Jonas Johansson

List of Publications by Year
in descending order

102 papers	4,618 citations	186209 28 h-index	98753 67 g-index
104 all docs	104 docs citations	104 times ranked	3653 citing authors

#	Article	IF	Citations
1	Controlled polytypic and twin-plane superlattices in iiiâ€“v nanowires. Nature Nanotechnology, 2009, 4, 50-55.	15.6	646
2	Structural properties of â€ˆ111â€‰B -oriented IIIâ€“V nanowires. Nature Materials, 2006, 5, 574-580.	13.3	412
3	Preferential Interface Nucleation: An Expansion of the VLS Growth Mechanism for Nanowires. Advanced Materials, 2009, 21, 153-165.	11.1	309
4	Growth of one-dimensional nanostructures in MOVPE. Journal of Crystal Growth, 2004, 272, 211-220.	0.7	278
5	Control of IIIâ€“V nanowire crystal structure by growth parameter tuning. Semiconductor Science and Technology, 2010, 25, 024009.	1.0	219
6	Mass Transport Model for Semiconductor Nanowire Growth. Journal of Physical Chemistry B, 2005, 109, 13567-13571.	1.2	205
7	Crystal Phases in III--V Nanowires: From Random Toward Engineered Polytypism. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 829-846.	1.9	156
8	Diameter-dependent growth rate of InAs nanowires. Physical Review B, 2007, 76, .	1.1	148
9	Effects of Supersaturation on the Crystal Structure of Gold Seeded IIIâˆ’V Nanowires. Crystal Growth and Design, 2009, 9, 766-773.	1.4	147
10	Mean-Field Theory of Quantum Dot Formation. Physical Review Letters, 1997, 79, 897-900.	2.9	143
11	Diameter Dependence of the Wurtziteâˆ'Zinc Blende Transition in InAs Nanowires. Journal of Physical Chemistry C, 2010, 114, 3837-3842.	1.5	129
12	Controlling the Abruptness of Axial Heterojunctions in IIIâ€“V Nanowires: Beyond the Reservoir Effect. Nano Letters, 2012, 12, 3200-3206.	4.5	121
13	Recent advances in semiconductor nanowire heterostructures. CrystEngComm, 2011, 13, 7175.	1.3	104
14	Growth related aspects of epitaxial nanowires. Nanotechnology, 2006, 17, S355-S361.	1.3	100
15	In situ growth of nano-structures by metal-organic vapour phase epitaxy. Journal of Crystal Growth, 1997, 170, 39-46.	0.7	80
16	The use of gold for fabrication of nanowire structures. Gold Bulletin, 2009, 42, 172-181.	3.2	61
17	Combinatorial Approaches to Understanding Polytypism in IIIâ€“V Nanowires. ACS Nano, 2012, 6, 6142-6149.	7.3	59
18	General Trends in Coreâ€“Shell Preferences for Bimetallic Nanoparticles. ACS Nano, 2021, 15, 8883-8895.	7.3	51

#	Article	IF	Citations
19	In situ analysis of catalyst composition during gold catalyzed GaAs nanowire growth. Nature Communications, 2019, 10, 4577.	5.8	49
20	Diameter Limitation in Growth of III-Sb-Containing Nanowire Heterostructures. ACS Nano, 2013, 7, 3668-3675.	7.3	45
21	Growth of Straight InAs-on-GaAs Nanowire Heterostructures. Nano Letters, 2011, 11, 3899-3905.	4.5	44
22	Demonstration of Defect-Free and Composition Tunable Ga_{<i>x</i>}In_{1â€“<i>x</i>}Sb Nanowires. Nano Letters, 2012, 12, 4914-4919.	4.5	44
23	A comparative study of the effect of gold seed particle preparation method on nanowire growth. Nano Research, 2010, 3, 506-519.	5.8	43
24	Parameter space mapping of InAs nanowire crystal structure. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 04D103.	0.6	43
25	Size- and shape-dependent phase diagram of Inâ€“Sb nano-alloys. Nanoscale, 2015, 7, 17387-17396.	2.8	39
26	Length Distributions of Nanowires Growing by Surface Diffusion. Crystal Growth and Design, 2016, 16, 2167-2172.	1.4	38
27	Composition of Gold Alloy Seeded InGaAs Nanowires in the Nucleation Limited Regime. Crystal Growth and Design, 2017, 17, 1630-1635.	1.4	32
28	Nucleation-limited composition of ternary IIIâ€“V nanowires forming from quaternary gold based liquid alloys. CrystEngComm, 2018, 20, 1649-1655.	1.3	32
29	The structure of ã€ˆ111ã€‰B oriented GaP nanowires. Journal of Crystal Growth, 2007, 298, 635-639.	0.7	31
30	Independent Control of Nucleation and Layer Growth in Nanowires. ACS Nano, 2020, 14, 3868-3875.	7.3	31
31	Kinetics of self-assembled island formation: Part IIâ€“Island size. Journal of Crystal Growth, 2002, 234, 139-144.	0.7	28
32	Zn-doping of GaAs nanowires grown by Aerotaxy. Journal of Crystal Growth, 2015, 414, 181-186.	0.7	28
33	Kinetics of self-assembled island formation: Part Iâ€”Island density. Journal of Crystal Growth, 2002, 234, 132-138.	0.7	27
34	Phase Transformation in Radially Merged Wurtzite GaAs Nanowires. Crystal Growth and Design, 2015, 15, 4795-4803.	1.4	27
35	Simulation of GaAs Nanowire Growth and Crystal Structure. Nano Letters, 2019, 19, 1197-1203.	4.5	27
36	Kinetically limited composition of ternary III-V nanowires. Physical Review Materials, 2017, 1, .	0.9	27

#	Article	IF	Citations
37	Manipulations of size and density of self-assembled quantum dots grown by MOVPE. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 667-671.	1.3	25
38	Simultaneous growth mechanisms for Cu-seeded InP nanowires. Nano Research, 2012, 5, 297-306.	5.8	25
39	Realization of Ultrahigh Quality InGaN Platelets to be Used as Relaxed Templates for Red Micro-LEDs. ACS Applied Materials & Interfaces, 2020, 12, 17845-17851.	4.0	24
40	Geometric model for metalorganic vapour phase epitaxy of dense nanowire arrays. Journal of Crystal Growth, 2013, 366, 15-19.	0.7	23
41	Polytype Attainability in IIIâ€“V Semiconductor Nanowires. Crystal Growth and Design, 2016, 16, 371-379.	1.4	23
42	Molecular motor efficiency is maximized in the presence of both power-stroke and rectification through feedback. New Journal of Physics, 2015, 17, 065011.	1.2	22
43	Single InP/GaInP quantum dots studied by scanning tunneling microscopy and scanning tunneling microscopy induced luminescence. Applied Physics Letters, 2002, 80, 494-496.	1.5	20
44	Electron beam prepatterning for site control of self-assembled quantum dots. Applied Physics Letters, 2001, 78, 1367-1369.	1.5	19
45	Morphology and composition controlled Ga_xIn_{1âˆ’x}Sb nanowires: understanding ternary antimonide growth. Nanoscale, 2014, 6, 1086-1092.	2.8	19
46	Size reduction of self assembled quantum dots by annealing. Applied Surface Science, 1998, 134, 47-52.	3.1	18
47	The thermodynamic assessment of the Auâ€“Inâ€“Ga system. Journal of Alloys and Compounds, 2014, 600, 178-185.	2.8	18
48	Assembling your nanowire: an overview of composition tuning in ternary IIIâ€“V nanowires. Nanotechnology, 2021, 32, 072001.	1.3	18
49	Quaternary Chemical Potentials for Gold-Catalyzed Growth of Ternary InGaAs Nanowires. Crystal Growth and Design, 2016, 16, 4526-4530.	1.4	17
50	Phase diagrams for understanding gold-seeded growth of GaAs and InAs nanowires. Journal Physics D: Applied Physics, 2017, 50, 134002.	1.3	16
51	Effects of growth conditions on the crystal structure of gold-seeded GaP nanowires. Journal of Crystal Growth, 2008, 310, 5102-5105.	0.7	15
52	From diffusion limited to incorporation limited growth of nanowires. Journal of Crystal Growth, 2019, 525, 125192.	0.7	15
53	Disciplinary action for academic dishonesty: does the studentâ€™s gender matter?. International Journal for Educational Integrity, 2015, 11, .	5.1	14
54	Self-assembled InN quantum dots on side facets of GaN nanowires. Journal of Applied Physics, 2018, 123, .	1.1	14

#	Article	IF	Citations
55	Limits of IIIâ€“V Nanowire Growth Based on Droplet Dynamics. Journal of Physical Chemistry Letters, 2020, 11, 2949-2954.	2.1	14
56	Effects of substrate doping and surface roughness on self-assembling InAs/InP quantum dots. Applied Surface Science, 2000, 165, 241-247.	3.1	13
57	Kinetic effects on the size homogeneity of Stranskiâ€“Krastanow islands. Applied Surface Science, 1999, 148, 86-91.	3.1	12
58	Surface morphology of MnAs overlayers grown by MBE on GaAs(111)B substrates. Applied Surface Science, 2000, 166, 247-252.	3.1	12
59	Compositional Correlation between the Nanoparticle and the Growing Au-Assisted In_{<i>x</i>}Ga_{1â€“<i>x</i>}As Nanowire. Journal of Physical Chemistry Letters, 2021, 12, 7590-7595.	2.1	12
60	Correlation between overgrowth morphology and optical properties of single self-assembled InP quantum dots. Physical Review B, 2003, 68, .	1.1	11
61	Aerotaxy: gas-phase epitaxy of quasi 1D nanostructures. Nanotechnology, 2021, 32, 025605.	1.3	11
62	Zinc blende and wurtzite crystal structure formation in gold catalyzed InGaAs nanowires. Journal of Crystal Growth, 2019, 509, 118-123.	0.7	10
63	Role of Thermodynamics and Kinetics in the Composition of Ternary III-V Nanowires. Nanomaterials, 2020, 10, 2553.	1.9	10
64	Dislocationâ€Free and Atomically Flat GaN Hexagonal Microprisms for Device Applications. Small, 2020, 16, 1907364.	5.2	10
65	Fluorescence imaging of light absorption for axial-beam geometry in capillary electrophoresis. Electrophoresis, 1998, 19, 2233-2238.	1.3	9
66	Regime change for nanowire growth. Nature Nanotechnology, 2007, 2, 534-535.	15.6	8
67	Thermodynamic assessment of the Asâ€“Zn and Asâ€“Gaâ€“Zn systems. Journal of Alloys and Compounds, 2015, 638, 95-102.	2.8	8
68	Embedded sacrificial AlAs segments in GaAs nanowires for substrate reuse. Nanotechnology, 2020, 31, 204002.	1.3	8
69	Sizes of self-assembled quantum dots â€“ effects of deposition conditions and annealing. Journal of Crystal Growth, 1998, 195, 546-551.	0.7	7
70	Continuous and discontinuous metal-organic vapour phase epitaxy of coherent self-assembled islands:. Journal of Crystal Growth, 1999, 197, 19-24.	0.7	7
71	Demonstration of Hexagonal Phase Silicon Carbide Nanowire Arrays with Vertical Alignment. Crystal Growth and Design, 2016, 16, 2887-2892.	1.4	7
72	Thermodynamics of oxidation and reduction during the growth of metal catalyzed silicon nanowires. Journal of Crystal Growth, 2019, 505, 52-58.	0.7	7

#	Article	IF	Citations
73	Effect of Radius on Crystal Structure Selection in IIIâ€“V Nanowire Growth. Crystal Growth and Design, 2020, 20, 5373-5379.	1.4	7
74	Improved quality of InSb-on-insulator microstructures by flash annealing into melt. Nanotechnology, 2021, 32, 165602.	1.3	7
75	Simulating Vaporâ€“Liquidâ€“Solid Growth of Au-Seeded InGaAs Nanowires. ACS Nanoscience Au, 2022, 2, 239-249.	2.0	7
76	Electron beam pre-patterning for site-control of self-assembled InAs quantum dots on Inp surfaces. Journal of Electronic Materials, 2001, 30, 482-486.	1.0	6
77	Bonding in intermetallics may be deceptive â€" The case of the new type structure Au2InGa2. Intermetallics, 2014, 46, 40-44.	1.8	6
78	The phase equilibria in the Auâ€“Inâ€“Ga ternary system. Journal of Alloys and Compounds, 2014, 588, 474-480.	2.8	6
79	Sintering Mechanism of Core@Shell Metal@Metal Oxide Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 16220-16227.	1.5	6
80	Manipulations of Densities and Sizes during Self-Assembling Quantum Dots in Metal-Organic Vapour Phase Epitaxy. Japanese Journal of Applied Physics, 1999, 38, 7264-7267.	0.8	5
81	Cu particle seeded InPâ€“InAs axial nanowire heterostructures. Physica Status Solidi - Rapid Research Letters, 2013, 7, 850-854.	1.2	5
82	Understanding GaAs Nanowire Growth in the Agâ€“Au Seed Materials System. Crystal Growth and Design, 2018, 18, 6702-6712.	1.4	5
83	Dissipation Reduction and Information-to-Measurement Conversion in DNA Pulling Experiments with Feedback Protocols. Physical Review X, 2021, 11, .	2.8	5
84	Focused ion beam fabrication of novel coreâ€“shell nanowire structures. Nanotechnology, 2008, 19, 445610.	1.3	4
85	InN quantum dots on GaN nanowires grown by MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 421-424.	0.8	4
86	Surface energy driven miscibility gap suppression during nucleation of IIIâ€“V ternary alloys. CrystEngComm, 2021, 23, 5284-5292.	1.3	4
87	Indium enrichment in Ga1â^'xInxP self-assembled quantum dots. Journal of Applied Physics, 2000, 88, 6378-6381.	1.1	3
88	Adatom diffusion on strained (111) surfaces: A molecular dynamics study. Physical Review B, 2004, 69, .	1.1	2
89	Monte Carlo investigation of the phase transition in the 2D Potts model with open boundary conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6301-6304.	0.9	2
90	Calculation of Hole Concentrations in Zn Doped GaAs Nanowires. Nanomaterials, 2020, 10, 2524.	1.9	2

#	Article	IF	Citations
91	Size control of self-assembled quantum dots. Journal of Crystal Growth, 2000, 221, 566-570.	0.7	1
92	Microcanonical Entropy of the Infinite-State Potts Model. Research Letters in Physics, 2011, 2011, 1-5.	0.2	1
93	Broadening of length distributions of Au-catalyzed InAs nanowires. AIP Conference Proceedings, 2016, , .	0.3	1
94	The probability density function tail of the Kardarâ€“Parisiâ€“Zhang equation in the strongly non-linear regime. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 505001.	0.7	1
95	Stochastic analysis of nucleation rates. Physical Review E, 2016, 93, 022801.	0.8	1
96	Thermodynamic assessment and binary nucleation modeling of Sn-seeded InGaAs nanowires. Journal of Crystal Growth, 2017, 478, 152-158.	0.7	1
97	Structural Characterisation of GaP <111>B Nanowires by HRTEM. Springer Proceedings in Physics, 2008, , 229-232.	0.1	1
98	Pedagogical Visualization of a Nonideal Carnot Engine. Journal of Thermodynamics, 2014, 2014, 1-7.	0.8	1
99	Manipulations of densities and sizes during self-assembling quantum dots in MOVPE. , 0, , .		0
100	The Role of Gender When Faculty Members Assign Consequences for Academic Dishonesty. New Directions for Community Colleges, 2018, 2018, 73-82.	0.3	0
101	Nucleation-limited composition of Al_{1-x}In_xAs nanowires. Journal of Physics: Conference Series, 2019, 1199, 012022.	0.3	0
102	The compositional homogeneity of the metal particle during vaporâ€“liquidâ€“solid growth of nanowires. Scientific Reports, 2020, 10, 11041.	1.6	0